CHAPTER 28

ATTRIBUTION-BASED TREATMENTS

Nancy L. Murdock
Elizabeth M. Altmaier

Attributions are causal statements formulated by individuals to explain life events. These causal judgments have been investigated in a wide range of contexts, varying from person perception to self-perception to emotional reactions to success and failure. Attributional approaches to understanding human behavior rest on the assumption that people are inclined to consider their own behavior and that of others and to make judgments of the likely causes of such behavior. These judgments can then operate in a scientific manner, serving as hypotheses for future information-gathering and deliberation. In this chapter, we examine the treatment process from an attributional perspective. First, the ways in which people's attributions can cause or exacerbate dysfunctional behaviors are noted. Then we examine how therapist attributions of client behavior and life problems influence the therapy process. Finally, we consider the various ways in which changing a client's attributions might prove to be a therapeutic intervention.

ROLE OF ATTRIBUTIONS IN CLIENT PROBLEMS

Evidence indicates that attributions play a significant role in the genesis and maintenance of psychological difficulties. Much of the research in this area has focused on the link between attribution and depression, drawing on the learned helplessness model of depression (e.g., Abramson, Seligman, & Teasdale, 1978; Peterson & Seligman, 1984). Learned helplessness initially was thought to occur when an individual experienced a negative event that she or he perceived as uncontrollable. This helplessness produced three types of deficits: cognitive deficits (an inability to perceive control over the situation), motivational deficits (failure to adequately respond to the situation), and affective deficits (depression and other forms of negative mood) (Seligman, 1975).

Abramson et al. (1978), in a revision of learned helplessness theory, postulated that three dimen-
sions of attribution were critical in determining whether a negative, uncontrollable experience would lead to pervasive helplessness and its associated deficits. When the individual explains the uncontrollable event as the result of internal factors, the result is personal helplessness. Universal helplessness occurs when the individual finds the cause of uncontrollability in external factors. While both types of helplessness produce the cognitive and motivational deficits generally associated with helplessness, personal helplessness is also likely to result in self-esteem deficits. Further, the generality and chronicity of helplessness is predicted by the attributional dimensions of stability and globality. For instance, an individual explaining a negative event as the result of causes that are stable across time (stability) and pervasive across situations (globality) will formulate a generalized expectancy of noncontingency and will consequently experience a generalized helplessness and greater depression.

Observations that certain individuals show consistent attributional patterns across situations led Abramson et al. (1978) to postulate that some individuals are more susceptible to depression as a result of an attributional style; that is, a tendency to attribute negative events to internal, stable, and global causes. These individuals are thought to be more prone to helplessness and, therefore, to depression.

Research on the reformulated learned helplessness model has produced mixed results (Brehm & Smith, 1986; Brewin, 1985; Coyne & Gotlib, 1983; Hammen, 1987; Peterson & Seligman, 1984). In general, it appears that individuals' causal statements for life events can influence depression and self-esteem, but the relationship may not be as direct as that postulated by the learned helplessness model (Brewin & Furnham, 1986; Cutrona, 1983; Gong-Guy & Hammen, 1980; Hammen & deMayo, 1982). Some studies have found support for the hypothesized depressed attributional style (Raps, Peterson, Reinhard, Abramson, & Seligman, 1982), whereas others have noted results that are inconsistent with the model. For example, Manly, McMahon, Bradley, and Davidson (1982) found no relationship between attributional style and depression following childbirth. Cutrona (1983), who also studied cognitive patterns in perinatal depression, demonstrated that attributional style weakly predicted depression following childbirth. Her results also revealed that attributional style did not predict causal attributions for negative events occurring after delivery. Both of these studies are open to the speculation that postpartum depression is a special case of depression, and the relationship of this depression to attributional patterns may not follow predictions generated by the learned helplessness model. In a more general sample, Hamilton and Abramson (1983) found that depressed individuals demonstrated expected attributional patterns, but also noted that nearly half of their depressed sample showed cognitive patterns more like nondepressed individuals.

These and other studies relied primarily on the Attributional Style Questionnaire (ASQ; Seligman, Abramson, Semmel, & von Baeyer, 1979), a measure developed to assess a relatively enduring tendency to attribute outcomes along various attributional dimensions. The ASQ asks participants to rate hypothetical events on the attributional dimensions of internality, stability, globality, and importance. In contrast, attributions for specific events may have more utility in predicting depression. For example, Gong-Guy and Hammen (1980) found no differences between depressed and nondepressed individuals on a combined index of disturbing events, but found strong differences when attributions for the “most upsetting” recent event were examined. Norman and Antaki (1988) recently created the Real Events Attributional Style Questionnaire (REASQ), a revision of the ASQ that asks subjects to rate actual negative events in their lives. Their results indicated that REASQ scores for negative events moderately correlated with depression, while the original ASQ showed a nonsignificant relationship with BDI scores. These results are preliminary, however, and await further verification.

Numerous other arguments have been advanced to account for the inconsistent results within the research on attribution and depression. Hammen (1987) suggested that certain events may be “depressogenic”; that is, the characteristics of events may have more influence in determining affective responses than previously thought. Brewin and Furnham (1986) further argued that important factors in depression may be “preAttributional” variables, such as consensus and consistency information. Consensus information refers to the degree to which the individual sees other people as experiencing some outcome, and whether the individual has experienced similar outcomes in the past determines consistency judgments. In two studies of cognition and depression, Brewin and
Furnham (1986) found evidence that depression and self-esteem were directly affected by consistency and (most notably) consensus information. Attributional information had little effect on affective variables when analyzed in combination with the preattributinal variables. Brewin and Furnham argued that studies not including consistency and consensus measures were probably tapping these dimensions indirectly through standard attributional measures.

It is noteworthy that most of the research on the reformulated learned helplessness model has not addressed attributions along the dimension of controllability of cause, although this dimension has been identified by some as an important determinant of reactions to life events (Glass, 1977; Janoff-Bulman, 1979; Langer, 1983; Rothbaum, Weisz, & Snyder, 1982; Weiner, 1979). It is possible that perceived controllability of the cause (distinct from locus, stability, or globality) is an important determinant of emotional response. That is, if an individual experiences a negative life event, and attributes the event to causes that are not under his or her control, depression may result. In a related vein, research on the effectiveness of excuses (see Snyder & Higgins, 1988) suggests that the process of changing attributions for negative outcomes to less “central” sources enhances perceived control and self-esteem.

Preliminary research concerning the influence of attributions in other psychological domains, such as shyness (Brodt & Zimbardo, 1981; Girodo, Dotzenroth, & Stein, 1981), social anxiety (Haemmerle & Montgomery, 1982, 1984), health-related issues (Affleck, Tennen, Croog, & Levine, 1987), marital and familial issues (Epstein, 1982; Harvey & Galvin, 1984), and child abuse (Larrance & Twentyman, 1983) has supported the contention that attributions play a role in a wide range of psychological functioning. For instance, Girodo et al. (1981) investigated the role of attributions in self-esteem and self-confidence for shy males, demonstrating that individuals with higher self-esteem formulated internal attributions for past social successes and external attributions for past failures and had greater expectancies for future success in social relationships as compared with individuals with low self-esteem. In a different domain, Larrance and Twentyman (1983) compared women who abused and neglected their children with a group of nonabusing control mothers. Abusing women had negative expectations about their children when compared with controls, and tended to report stable and internal attributions for their children’s transgressions. When their children succeeded, abusing mothers gave external and unstable attributions for these successes. The opposite pattern was found when other children failed; abusing mothers’ attributed other children’s transgressions to unstable and external factors.

Although the data appear to be somewhat mixed, the majority of studies suggest that causal attributions play an important role in psychological difficulties. Most theorists agree that counselors should determine what attributions are formulated by their clients in order to more fully understand each client’s view of the problematic situation, paying particular attention to those causal statements that appear to undermine the client’s sense of personal control over life events.

COUNSELOR ATTRIBUTIONS

Like clients, counselors also compose causal explanations for client difficulties. Counselor attributions for client problems would appear to be a critical influence upon the counseling process as causal hypotheses have been linked to choice of treatment (e.g., Batson, 1975; Murdock & Fremont, 1989). Also, counselor attributions that are directly or indirectly communicated to the client would influence the client’s perceptions of his or her difficulties. Unfortunately, research on counselor attribution has been limited compared with the larger body of literature on client attributions.

It might be argued that, in a clinical setting, counselors and clients would view the clients’ situations similarly, because information is more readily available than in an experimental setting. However, Sherrard and Batson (1979), comparing clients’ and counselors’ perceptions of the locus of client problems, demonstrated a lack of agreement between the groups. A further complicating feature in a clinical setting is the possibility of targeting treatment to perceived internal versus external causes. Batson (1975) found that subjects referred simulated clients to social service agencies when situational attributions were made for clients’ problems, whereas more traditional therapy referrals were matched to dispositional attributions. Clearly, the act of presenting oneself for therapy carries with it a “set” for dispositional causes (cf. Snyder, 1977) for both client and therapist in the current psychotherapy milieu.

Strohmer and his associates (Haase, Strohmer,
Biggs, & Keller, 1983; Strohmer, Biggs, Keller, & Thibodeau, 1984; Strohmer, Haase, Biggs, & Keller, 1982) have conducted a series of studies on counselor decision-making relevant to attributional influence. In this research, Strohmer et al. (1982) initially proposed a model of counselor judgment in which counselor observations (i.e., of personality) and inferences of current status and cause (attributions) influence the counselor’s ultimate judgment of client-anticipated progress in counseling. In the initial study (Strohmer et al., 1982), counselors (graduate students) were asked to make sequential judgments about case materials. This methodology yielded results supporting a model where observations influence inferences, which, in turn, influence clinical predictions. Attributional information did not have a critical effect on counselor judgment. The later studies used a larger sample size and counselor judgments within a specific diagnostic context (affective disorder). Again, attributions failed to account for significant variance in counselor judgment with the minor exception of distinguishing bipolar from unipolar affective disorder.

Other researchers (Murdock & Fremont, 1989) have investigated treatment assignments as a function of counselor attribution. These results suggest that attribution of client problems to stable causal factors was associated with referral to long-term individual counseling. In contrast, when the client's problems were seen as resulting from unstable factors, shorter-term interventions were offered.

While the results of these studies seem inconsistent, the discrepancies most likely result from the models from which they originated and the tasks that were assigned to therapist-participants. In particular, the experimental tasks have varied from assigning global attribution (personal vs. environmental causation) to therapist ratings on a number of more discrete dimensions (internality, stability, globality, controllability) to modeling therapist decision-making via sequential judgments on several variables. Clearly, more research is needed in this area to identify the influences of attributional variables on the various cognitive tasks undertaken by therapists.

ATRIBUTIONS AND PSYCHOLOGICAL CHANGE

Attribution approaches to counseling postulate that altering causal statements can play a significant role in promoting and/or maintaining psychological change on the part of the client (Antaki & Brewin, 1982; Claiborn, 1982; Forsterling, 1986; Strong, 1978). Several types of attribution-based interventions have been identified, including misattribution interventions, attribution retraining, and the use of attribution to promote maintenance of therapeutic change.

Misattribution Therapy

The earliest applications of attribution theory to treatment relied on the notion of misattribution: leading clients to attribute their negative arousal states to external, as opposed to internal, sources. The misattribution approach was based on Schachter's (1964) two-factor theory of emotions, which postulated that physiological arousal was generic and specific emotions were elicited by the cognitive labels individuals adopt. The term “misattribution” was used because the individual may incorrectly attribute arousal to a source other than that which produced it. For example, in Schachter and Singer's (1962) classic study, subjects were given an arousing drug (epinephrine) but were told that the injection was a vitamin supplement. Some participants were informed about the arousing effects of the drug, but a second group was not. A third group was misinformed about the effects of the drug (they were told that the supplement should produce numbness, itching, and a slight headache). Finally, a control group was given an injection of saline. The participant was then joined by a confederate who acted either angry or euphoric. Participants who had no prior explanation for their arousal or who were misinformed attributed their arousal to the confederate (i.e., either reported being angry or euphoric), while the subjects who were actually informed earlier did not make this misattribution. These findings suggested that emotional arousal could be reattributed to a source different from what actually caused the arousal.

Early laboratory research generally supported the misattribution approach. In one of the first investigations of misattribution therapy, Ross, Rodin, and Zimbardo (1969) induced fear in participants by leading them to believe they were to receive shock in a later stage of the experiment. Half of the participants were given the opportunity to misattribute fear-related symptoms to noisy noise, while the remaining participants were not presented with this misattribution procedure. Results of the study demonstrated that participants not given the noise explanation were more fearful than those who were, and they also ex-
pended more energy trying to avoid subsequent shock than those who were given misattribution therapy.

Using a similar method, Brodt and Zimbardo (1981) employed a misattribution intervention with chronically shy women. Their participants were bombarded with noxious noise in the presence of an attractive male confederate. Some shy subjects were told that their (presumably shyness-related) arousal was a side effect of the noise. Other shy subjects were misinformed about the effects of the noise; they were told that noise-related effects would be a dry mouth and tremors. A comparison group of not shy women also was misinformed about the effects of the noise. The male confederate was instructed “to provide an atmosphere in which the participant may talk if she so chooses” (p. 441). Interaction between the subject and confederate was monitored during a 5-minute period, ostensibly a readjustment period following the noise bombardment. Results revealed that shy women who had been given misattribution information interacted to the same degree as did the more outgoing comparison group. Interestingly, when asked to identify the shy and not shy women, the confederate, who was unaware of an experimental condition, had the most difficulty classifying the shy participants who received the misattribution intervention. He was quite accurate in identifying the not shy women (81%), and somewhat accurate in identifying the shy-misinformed participants (64%). However, he was much more ambivalent about the shy women who received the misattribution intervention.

Perhaps the most controversial misattribution therapy study was Storms and Nisbett's (1970) insomnia study. In this study, insomniac subjects were given a placebo pill. Some of the participants were told that the pill would relax them, others that it would precipitate arousal. Paradoxically, participants given the arousal explanation reported falling asleep more quickly than usual. Participants who received the relaxation explanation reported taking more time than usual to fall asleep. Storms and Nisbett contended that participants in the arousal condition misattributed their arousal to the placebo, rather than to insomnia, and thus were able to fall asleep more easily. However, no direct evidence was collected to support this interpretation of the findings.

Several subsequent investigations failed to replicate Storms and Nisbett’s findings. Among these was a study conducted by Kellogg and Baron (1975). They offered an attribution for behavior (as opposed to arousal) explanation, arguing that participants who agreed to take arousal pills might have decided that their insomnia was mild that week, and therefore, fell asleep more easily. In contrast, those taking relaxation pills could have decided that they did so because their insomnia was much worse than usual. Extending this justification hypothesis, Kellogg and Baron hypothesized that participants given strong external justification for taking the pills (which was not present in the original study) would attribute the pill-taking behavior to the external source, and no reverse placebo effect would appear. The results of Kellogg and Baron’s study did not strongly support either of the hypotheses. The participants most similar to those in Storms and Nisbett’s original study (those who were given no strong external justification for taking the pills), in fact, reported the longest latencies to sleep of any of the groups. This finding was even contrary to Kellogg and Baron’s reformulation hypotheses. The authors noted that, while the justifications given participants did seem to have some effects, the source of these effects was unclear. These results are consistent with those of Bootzin, Herman, and Nicassio (1976) who also found a direct placebo effect in a study similar to the previous work.

Although later studies have provided some support for the misattribution position (Barefoot & Girodo, 1972; Lowery, Denney, & Storms, 1979), overall the research remains inconsistent. The contradictory results found with this approach have not been theoretically or empirically explained. In the context of these inconsistencies, Brehm and Smith (1986) pointed out that misattribution approaches appear to function effectively when the arousal is mild and the source of the arousal is ambiguous. Therefore, this approach may not be useful when arousal is intense because the source of the arousal is presumably more salient. Further, clients are likely to present themselves for treatment having already formulated some explanation for their troubles, and therefore the misattribution approach may not be as widely applicable in general counseling contexts as early research indicated.

**Attribution Retraining**

Changing maladaptive client attributions to ones that promote more positive psychological functioning is a second intervention derived from attribution theory (Abramson, Seligman, & Teasdale, 1978; Forsterling, 1985). Advocates of this
approach generally argue that attributions for negative life events are more useful if they emphasize factors that have fewer implications for self-esteem or that produce positive affect. The reformulated learned helplessness model suggests that the most useful attributional therapy should emphasize attributing failure experiences to external, unstable, and specific factors. However, other attributional therapists (Dweck, 1975; Weiner, 1979) argue that the most effective attributional pattern in alleviating psychological difficulties is to focus upon internal, unstable, and specific causes. This attributional pattern would presumably increase the individual’s sense of control over life outcomes and thus enhance psychological functioning (Bulman & Wortman, 1977; Glass & Singer, 1972; Janoff-Bulman, 1979; Langer & Rodin, 1976; Schultz, 1976).

Reattribution to External, Unstable, or Specific Factors

Skilbeck (1974) initially presented a case study in which the client, a female undergraduate student, came to counseling feeling anxious and depressed. She attributed these symptoms to her “disturbed family background” (Skilbeck, 1974, p. 372). Brief crisis counseling was used to locate the source of the client’s difficulties in stress from an important upcoming class examination. Thus, causal analysis of her current circumstances reportedly altered the original internal and uncontrollable attribution (family background) to one that was external and controllable (reaction to a particularly difficult examination).

More recently, Wilson and Linville (1982) assessed the effects of an attribution therapy—leading individuals to attribute a negative outcome to unstable factors—on academic performance among first-year college students. Students who were experiencing academic difficulties were given information that low grades usually improve as students progress through their education (presumably an unstable attribution for performance). This intervention had positive effects: students receiving therapy showed improved grade point averages a year later, and fewer students of this group dropped out of college as compared with students in a control group who received no “therapy.” In response to methodological criticism (Block & Lanning, 1984), Wilson and Linville later conducted two replication studies (1985). The combined results of the three studies supported their initial arguments, and further clarified that the attributional treatments appeared to be more influential for male participants. The authors reasoned that the effects were stronger for males because female participants, more likely to seek social support when under stress, had already learned from others that causes of poor grades may be unstable in nature. Therefore, the heightened treatment effectiveness for male participants was presumably due to their learning new information from the intervention.

Research investigating attribution and mood states indicates that retraining individuals to attribute failure to external, unstable, and specific factors can allay the depressive mood that often accompanies uncontrollable negative events. Green-Emrich and Altmair (1990) identified participants who were “adaptive” attributors (i.e., they most often attributed failure to external, unstable, and specific factors) and “nonadaptive” attributors (more often attributing negative outcomes to internal, stable, and global factors). Some participants from the nonadaptive group then received attributional retraining, in which participants were taught to attribute uncontrollable negative events to external, unstable, and specific factors. During an experimental session, all participants were confronted with an uncontrollable negative outcome and then attempted to solve a set of soluble anagrams. No differences were found for performance on the anagram task, but the treatment group showed lower depression scores than the untreated nonadaptive attributors. Depression levels were also similar for the treatment and adaptive, untreated groups. Thus, while attributional and performance measures appeared to be unaffected by the attributional intervention, the intervention did have effects on participants’ mood states.

Reattribution to Internal and Controllable Factors

Altering attributions for failure experiences from internal and stable (ability) factors to internal and unstable (effort) factors appears to influence persistence on difficult tasks. Dweck (1975) initially demonstrated that teaching children to attribute failure outcomes to insufficient effort (an internal but controllable cause) was an effective attributional therapy. Chronically helpless children (i.e., who consistently perceived outcomes as uncontrollable) who were taught to attribute failure to lack of effort were more persistent on sub-
sequent tasks compared with children who experienced only success in the training phase. Chapin and Dyck (1976) employed a similar paradigm to aid children with reading difficulties. They found that training these children to make effort attributions for negative outcomes increased persistence on a posttest, but also noted that this effect varied depending on reinforcement schedules used in training procedures. Longer reinforcement intervals produced increased persistence regardless of whether the children received attribution therapy, while attribution retraining showed positive effects when short reinforcement intervals were operating.

Zoeller, Mahoney, and Weiner (1983) targeted the performance-oriented attributions of mentally handicapped participants identified as having problems with motivation prior to the study. The attributional training was given after participants experienced repeated failure on an experimental task. Participants who learned to attribute failure to effort, and success to ability and effort, showed improved performance on subsequent psychomotor tasks relative to other participants who received no training.

In a partial replication of Chapin and Dyck’s research, Fowler and Peterson (1981) varied schedules of reinforcement and type of attributional training given to children who had difficulties with reading. The type of attributional information given in previous research (i.e., telling the child that “you have tried hard”) was conceptualized as relatively indirect, compared with their second treatment, which combined this information with cognitive modeling procedures. Children receiving direct training first heard an audiotape of another child who modeled effort attributions and then practiced verbalizing effort attributions overtly and covertly. Results generally supported Chapin and Dyck’s findings with regard to reinforcement schedules, but did not suggest differential effectiveness of the type of attributional interventions. Children who were exposed to both direct and indirect effort attribution therapy showed increased persistence on difficult problems relative to children who received no attribution therapy paired with short reinforcement intervals. When reinforcement intervals were longer, children who received no attributional training performed no differently than those who did.

Fowler and Peterson (1981) also provided some evidence that attributional retraining was effective in changing children’s attributions for outcomes in the direction of increased effort. Previous research had not undertaken the task of verifying the effects of attribution retraining; the assumption was made that these interventions changed attributions in the desired directions. Fowler and Peterson assessed the effects of their retraining on the Intellectual Achievement Responsibility Scale (IAR; Crandall, Katkovsky, & Crandall, 1965), a forced-choice instrument that measures participants’ perceptions of responsibility for positive and negative achievement outcomes. On this scale, scores can be derived for responsibility taken (i.e., internal attributions) for positive and negative events, and the internal scores can be subdivided into scores reflecting attributions to effort and ability. Using the overall internal scores, all of Fowler and Peterson’s treatments produced significant increases in attributions to internal factors from pre- to postmeasurements; specific attributions to effort changed in a similar manner.

Andrews and Debus (1978) examined the influence of attributional training on persistence with concept formation tasks. Participants in the training phase of their study were children (all male) who had least frequently attributed failure to lack of effort in the first phase of the research. Two groups of these participants were reinforced for making effort attributions (verbal/social and verbal/social plus token reinforcements) for both success and failure at a block design task. The control group was given no training. Treatment groups showed greater persistence on a perceptual reasoning task at both immediate and delayed posttests. Using both the IAR and a task-specific measure of attribution, Andrews and Debus found strong evidence for changes in attributional patterns over treatment, primarily with their task-specific attribution measure. Their results indicated that both treatment groups resulted in increased effort attribution for success and failure trials compared with the control group.

Effort retraining and persistence and performance on visual discrimination tasks were examined by Medway and Venino (1982). They reasoned that children who experienced an increasing pattern of successes (as opposed to a random pattern) on these problems would show greater attributions to effort and improved task persistence. The data were similar to those of previous research: effort retraining produced increased task persistence on a posttest. However, no differences in attributions to effort emerged when the trained
and untrained groups were compared. The hypothesized increase in effort attributions under ascending success patterns also was not apparent.

Anderson (1983) also studied the influence of reattribution procedures on persistence, expectancies, and motivation using an interpersonal persuasion task (calling people on the telephone and trying to persuade them to donate blood). Some participants were told that either effort or “wrong strategies” were responsible for task outcomes, while others were informed that success was related to stable factors (character dispositions and ability). Results indicated that individuals receiving the attributional training toward unstable factors had higher initial expectancies with less decline following failure than did participants receiving training emphasizing stable factors. In addition, the unstable attribution group was more effective than the comparison group in its recruitment of blood donors.

A series of studies by Schunk (1981, 1982, 1983, 1984) employed attributional retraining with children in order to facilitate performance on arithmetic tasks. These studies focused on the effects of effort and ability attribution. Initially, Schunk (1981) found that attributional training had no effect on persistence, performance, or self-efficacy ratings. In contrast, Schunk (1982) demonstrated that a critical variable was whether the attributional intervention highlighted past or future achievement. “Effort therapy” was effective if it stressed that results of previous achievement (as opposed to future achievement) were dependent on the effort expended by the child. In another study (Schunk, 1983), effort or ability feedback was given to children, or the two were combined in one intervention. All three types of therapy improved performance, but ability feedback was superior in this respect and also had strong effects on self-efficacy. An interesting feature of this last study was that the arithmetic tasks used in the study were of average difficulty, and children were given significant training in completing them. Thus, the ability attribution was consistent with the children’s experience with the problems—they were actually performing well. However, ability attributional information may be more risky when, as in most studies, failure experiences are added to the experimental tasks.

Other Variables

Other studies of attributional therapy have suggested that the operation of attributional interventions may be more complex than previously thought. Factors such as the timing of the intervention (Altmairer, Leary, Forsyth, & Ansel, 1979), personality characteristics of the client (Forsyth & Forsyth, 1982), and the degree to which the intervention disagrees with the client’s attributional scheme (Claiborn, 1982) may influence the effectiveness of attributional counseling.

Altmairer et al. (1979) investigated the effects of intervention timing and participant locus of control on the effectiveness of attributional interventions. Individuals who held an internal locus of control responded more positively when they received an attributional intervention prior to the negative event (interpersonal failure) or when the intervention was delayed. In contrast, external locus of control participants responded most positively when they received the intervention immediately after the negative event.

Forsyth and Forsyth (1982) found that, for clients who endorsed an internal locus of control, emphasizing internal and controllable causes (as opposed to external and controllable) was more effective in relieving social anxiety. They conducted a pair of studies to manipulate directly individuals’ attributions for negative interpersonal events in an attempt to reduce overall social anxiety. Interventions focusing on reattribution to internal and controllable factors were more helpful for internal individuals than were interventions emphasizing external and controllable causes for “externals.”

Some authors have suggested (e.g., Claiborn, 1982; Strong & Claiborn, 1982) that the content of attributional interventions is not as important as the discrepancy between client and counselor beliefs. According to this view, an intervention should moderately disagree with what the client thinks in order to produce the most change. Attempting to drastically alter a client’s attributions, then, would undermine the change effort as would matching the client’s explanations too closely.

Claiborn and Dowd (1985) compared the content model (i.e., certain attributions are more helpful than others) and the discrepancy model (described above) in a study that focused on interventions aimed at depression. Two treatments were offered: a characterological interpretation treatment (Janoff-Bulman, 1979) that located the source of negative emotions in personal characteristics, and a behavioral interpretation treatment that stressed behavioral and cognitive causes of negative emotions. All participants receiving in-
Interpretation treatment showed a decrease in depression over time, and interestingly, differing attributional patterns on the two attributional measures. The more global attributional measure (ASQ) revealed that participants' attributions became more specific and external as a result of treatment. However, for the actual problems they brought to therapy, clients became more internal. With regard to the two models being tested, the results of the study did not strongly support either model of attributional retraining. The discrepancy model received weak support from a finding that clients who initially held characterological styles decreased their judgments of stability of problem cause. The authors argued that this pattern fit the discrepancy model because the positive change occurred in a moderate, as opposed to highly discrepant, interpretation condition.

Other research has supported the contention that the content of the interpretation is not important. Hoffman and Teglas (1982) studied the effects of two types of causal explanations with shy individuals. They exposed participants to either cognitive-behavioral or psychoanalytic interpretive explanations. These two groups were compared with a control condition in which no causal explanations were presented. The cognitive-behavioral explanation was assumed to represent internal and controllable causes for shyness, whereas the analytic formulations was presented as an external, uncontrollable explanation. Both attributional interventions increased motivation to change, expectations of change, and involvement in and utilization of counseling sessions, as compared with the control condition. No differences emerged between the two attributional treatments.

In reviewing the literature on attribution retraining, it appears that both content and discrepancy models have received some support. However, the processes involved in attribution therapy are still unclear. Strong support is found for "effort therapy" when the behavior of interest is persistence. Some evidence seems to indicate that performance is affected by reattribution to effort, as well. Interventions aimed at changing attributions in the directions advocated by learned helplessness theory (external, specific, and unstable attributions for negative events) appear somewhat less successful when performance indices are examined. Wilson and Linville's (1982, 1985) studies focused on attribution to unstable factors, although it is unclear whether these factors were perceived as internal or external by the participants. Green-Emrich and Altmairer's (1990) research suggested that affect was improved by altering attributions in an external direction, but not performance on an experimental task. Claiborn and Dowd's (1985) research indicated that, whereas content of the attributional intervention was unimportant, clients who attended therapy learned to be external attributors overall and internal attributors for presenting problems. One possible explanation for these divergent findings is implied in the above summary: attributional retraining is differentially effective depending on the target of the intervention.

Individuals who come to therapy are usually in great pain, and are often using internal attributions for negative life events. This process has been identified by Beck and others (i.e., the cognitive triad; Beck 1976; see Coyne & Gotlib, 1983, for a review), particularly with regard to depression. At the same time, the client may be using external attributions for actual symptomatic behavior (i.e., failing to take responsibility for changing problematic situations). The process of therapy may help the client formulate external, unstable, and specific attributions for many situations, thereby improving overall affect and raising self-esteem. In addition, modifying external attributions for specific dysfunctional behaviors (analogous to the achievement behaviors studied in the persistence studies) to ones that are more internal may prove beneficial to the client in increasing his or her sense of control over salient life events. Therefore, both types of attributional change probably operate, and the effects observed depend on the level at which change is measured. Future research should address these possibilities by including both specific and global attributional measures as well as taking into account various outcome criteria (e.g., persistence, affect, problem-solving).

**ATRIBUTION AND MAINTENANCE OF CHANGE**

Attributional approaches to enhancing maintenance suggest that if clients attribute positive behavior change to internal (self-relevant) causes, change is more likely to persist. For example, Jeffrey (1974) compared self-control and environmental-control interventions in maintenance of weight loss. Self-control interventions emphasized the client's personal responsibility for
change, whereas the environmental-control intervention stressed the therapist's role in weight loss. Both interventions were effective in producing weight loss over a 7-week period. Six weeks after treatment, however, the self-control directives were superior to the environmental-control interventions in maintenance of weight loss. The self-control group also demonstrated a more internal locus of control when compared with the environmental-control group.

Sonne and Janoff (1979) also investigated the influence of attribution in maintenance of weight loss. Clients who were told that weight loss was a matter of self-control attributed their success more to personal causes, and demonstrated superior maintenance of weight change at follow-up assessments, than did clients given other attributional explanations. In fact, the participants' perceptions of their control over weight loss and the degree to which they personally contributed to their behavior change accounted for 22% of the variance in weight loss 11 weeks after treatment.

Other research has supported the hypothesis that attributing positive change to internal factors may enhance the longevity of the change. Davison, Tsujimoto, and Glaros (1973) investigated the role of attribution in helping insomniacs maintain changes in sleep patterns. Their participants were given a sleep-producing drug (chloral hydrate) and were also instructed in relaxation and scheduling procedures. The drug given was known to shorten sleep attainment latencies in the dose administered. After using the drug and other procedures for a week, some participants were told that they had taken an optimal dose of the drug while others were informed that the amount they had taken was subclinical. All participants were told to stop using the drug, but to continue relaxation and scheduling procedures. The authors reasoned that participants who received the minimal dose explanation would be led to attribute their changes in sleep latencies to controllable factors (i.e., the procedural interventions) and therefore should show greater maintenance of change compared with the group told their drug dose was optimal. Results supported this prediction, and evidence was collected that substantiated the attributional pattern expected by these researchers. In a related vein, Colletti and Kopel (1979) and Colletti and Stern (1980) found that self-attribution was related to long-term reduction of cigarette smoking.

Brehm and Smith (1986) sensibly cautioned, however, that the role of attribution in the explanation for relapse, or negative change, should be reversed. When a client experiences no change, or change in an undesirable direction, attribution to internal factors may be debilitating. In this instance, the counselor might be wiser to assist clients in formulating more external causal statements for their behavior. In consideration of failure or relapse "inoculation," counselors could consider developing an attributional set for the client that anticipates failure and attributes it to normal change-promoting processes.

**ATTRIBUTION THERAPY IN A HEALTH CONTEXT**

Much of the attribution therapy research has been conducted in achievement contexts using measures of persistence, performance, and affect. Thus, the link between this body of research and problems occurring within a health context is unclear. For people experiencing negative health outcomes, such as a recurrence of cancer, unremitting low back pain, or an unfavorable prognosis, the likelihood of attributions being made for the physical condition is high (Turnquist, Harvey, & Andersen, 1988), but the relation of these attributions to outcome is less clear. Further, the need to engage patients in attributions retraining within a health context is undefined.

Research evidence suggests that patients dealing with illness do indeed make attributions about their illness. Taylor, Lichtman, and Wood (1984) studied 78 breast cancer patients, using both interview and questionnaire methods. Their results indicated that almost all of the patients had made attributions for their cancer, in many cases using more than one causal element. These results are supported by data revealing that patients with a variety of diseases report one or more causes of their illness (e.g., Affleck, Allen, Tennen, McCabe, & Ratzan, 1985; Tennen, Affleck, & Gershman, 1986). The content of such attributions ranges widely over domains such as "others' actions," "self," "environmental events," and "chance."

In addition to variations in content, investigators have reported differences in the strength with which causal attributions are held. Turnquist et al. (1988), in reviewing research on attributions of illness, noted that severity of disease appeared to influence both frequency of attribution and the strength of belief. Individuals with severe ill-
nesses, such as cancer, hold more beliefs but hold them less strongly than individuals with less severe illnesses. It may be, as Taylor (1983) proposed, that the cognitive adaptation problem posed by a threatening illness necessitates holding several specific cognitions so that any disconfirmation can result in a change to another attribution. A similar argument was put forth by Snyder (1989) in proposing a hope motive that is partially formed through attributional dissociation from bad outcomes. Such cognitive adaptation might precede emotional or behavioral adaptation; unfortunately, research on attitude-behavior sequencing is sparse in the attribution literature as a whole (Harvey & Weary, 1984) as well as in the health context.

How are health attributions related to adjustment? Although it would seem intuitively appealing that particular attributions would enhance adjustment to difficult treatment regimens or negative diagnoses, strong evidence of such a relationship is lacking. Generally, attributing cause of illness to others predicts a poor adjustment (i.e., Affleck et al., 1987), but there is no clear relationship for self-attributions and outcome. Some evidence for the positive role of self-blame (e.g., Bulman & Wortman, 1977) is contradicted by research suggesting that self-blame can serve as a predictor for negative outcomes (e.g., Kiecolt-Glaser & Williams, 1987).

A second aspect of attribution and outcome concerns patients' general beliefs about the likely course of their disease and their ability to exert control over this outcome. For example, for the breast cancer patients studied by Taylor et al. (1984), belief that one could control one's cancer and belief that others could control the cancer were both associated with good adjustment. Related research has shown that people who have a stronger belief in their own control have achieved better postoperative outcomes (Johnson, Leventhal, & Dabbs, 1971) and are more likely to engage in preventative health behaviors (Williams, 1972).

Asserting some type of personal control may be associated with better adjustment than considering a situation as uncontrollable. The distinction posed by Rothbaum et al. (1982) between primary and secondary control is relevant here. Primary control involves the individual changing the environment to improve outcome, while secondary control suggests changing oneself to improve the fit with the environment. Within a health context, both sources of control probably operate in an interactive manner. Individuals may experience negative health outcomes as a disconfirmation of control, and thus shift from primary control (e.g., making changes in diet, reducing stress) to secondary control methods (attributing likelihood of outcome to powerful others).

Attributions in health contexts can be considered to serve as representations about sources of control. The models of helping defined by Brickman, Rabinowitz, Karuza, Coates, Cohn, and Kidder (1982) provide a useful conceptualization of attributions and health processes. In these models, people vary in their attribution of problem responsibility (to self or to others) and in their attribution of solution responsibilities (to self or to others). Interestingly, the usual mode of medical treatment is to place control in the hands of a powerful other, and such a model is characterized by Brickman et al. as one in which attribution for both problem and solution is external. When the medical model is utilized, the person perceives himself or herself as "ill" and experts as the ones who have control over treatment. Altmairer (1986) argued that the compensatory model was better suited to rehabilitation health outcomes, where responsibility for solution rested with the individual in consultation with powerful others. The compensatory model would suggest, as a practical implication, that patients be given as much control as possible over treatment, including increased participation in treatment decision-making. In addition, attributions to internal controllable sources for gradual successes would be critical.

An alternative understanding of the role of attributions in health outcomes has been proposed by Leventhal and colleagues (Leventhal, Meyer, & Nerenz, 1980). In this model, patients form representations of their disease and treatment along several dimensions: identity, cause, timeline, and consequences. The representation of cause most closely parallels a traditional definition of attribution, although all of the representations could be argued to serve attributional functions. These representations then influence subsequent plans and actions and the emotional responses patients have to the initial situational stimuli. Research has suggested for the most part that varying illness representations influence health-care utilization and compliance with treatment. For example, Bauman and Leventhal (1985) demonstrated that monitoring blood pressure primarily occurred in the presence of particular symptoms, indicating an acute as opposed to chronic illness representation.
Given the many sources of influence in health contexts, it is difficult to specify how attributional training might improve outcomes. Spontaneous cognitions are difficult to measure and are often correlated with mood, disease status, and treatment regimen. Thus, making confident predictions about the advisability of altering attributions is difficult. However, based on the preceding research, attributions that simultaneously work toward achieving a desired outcome and preparing for failure may be most adaptive within health contexts. The danger of promoting attribution of perceived control is that fostering a sense of control also can increase self-blame and negative affect when control failures occur. For example, recent treatment adjuncts for cancer that instruct a patient to assist in disease control through imagery can easily lead to self-blame if the cancer recurs. Disconfirmation of control (see Thompson, Cheek, & Graham, 1988, for review) is a likely event and suggests the importance of preparing for it. Indeed, preparing for failure is an integral component of most coping skills treatments (see Turk, Meichenbaum, & Genest, 1983) and may represent a promising avenue for attributional treatments in health contexts.

INTEGRATION

As with almost any area of research, the literature on attributional interventions is complex and, at times, confusing. Although our sample is by no means an exhaustive compilation of the applied attribution literature, the wealth of research in this area presents the difficult task of assimilating and using the knowledge gathered thus far (without formulating an internal attribution for our struggles). With all of the usual qualifications, the following are tentatively offered:

1. The misattribution approach seems less likely to apply to normal treatment situations because clients are likely to come to therapy as a last resort. Because they have probably lived with their negative affect for quite some time, they are likely to have formulated strong causal explanations (whether they wish to “consciously” acknowledge them or not) for their problems prior to seeing the therapist.

2. Within the attribution area, attributional retraining (or attribution therapy) is the most energetically researched intervention. The primary issue seems to reside in whether specific attributions are more helpful than others and in whether clients get better simply through forming new cognitive schemata.

3. This question (number 2) leads to the usual question found in psychotherapy outcome research: Better in what way? Almost all of the studies of attribution retraining showed positive effects, but the types of interventions offered and the selection of outcome variables varied widely.

4. Studies of attribution retraining to effort (“effort therapy”) have generally supported Weiner’s (1979) contention that such attributions should lead to increased motivation and persistence for difficult tasks. Some evidence also was gained for improvement in performance, but these results were not as consistent as the findings regarding persistence. Because not all studies gather performance data, this conclusion may largely be an artifact of the studies reviewed.

5. Studies involving more “traditional” therapy problems, such as depression or interpersonal problems, present inconsistent results. Some studies support the content model, some can be interpreted to support both content and discrepancy models, and others provide confirmation mainly for the discrepancy model of attribution therapy. This area deserves further research with a particular emphasis on relation of intervention to type of problem.

6. Unlike the studies in the persistence area, the quasi therapy studies do not use similar outcome measures and are inconsistent in assessing and reporting attributional processes of their client-subjects. For example, Claiborn and Dowd (1985) found evidence for two levels of attributional patterns that seemed to operate in opposite directions. Forsyth and Forsyth (1982, study 1) found differential attributional change dependent on the locus of control of subjects. Thus, it is difficult to generalize about this group of studies, but, as suggested earlier, these data do provide further research ideas.

7. Maintenance of therapeutic change appears to be facilitated by self attribution for successful behavioral change. As with the persistence studies, the maintenance research most often deals with easily measurable outcomes. Also, it should be clear that attribution to personal factors may only be facilitative for positive change; interventions after relapse may be quite different.

More research is needed, but generally, an attributional approach to treatment seems useful with some clients and some types of psychological difficulties. Therapists should be flexible in their use
of attributional interventions, keeping in mind that the route to more positive psychological functioning can take different directions for different clients. As with any approach to treatment, a wholesale adoption of the tenets of attributional interventions is probably inappropriate; on the other hand, a significant body of research has indicated that this approach can be helpful. Obviously, it remains to the therapist to determine how attributional interventions can best be used to help clients in distress.

REFERENCES


Janoff-Bulman, R. (1979). Characterological versus behavioral self-blame: Inquiries into de-


